



ARCHITECTURAL COMPETITIONS FOR CARE AND CAREGIVING

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ARCHITECTURAL COMPETITIONS FOR CARE AND CAREGIVING

International overview, Nordic competitions
and Swedish representations

This article will discuss architecture and architectural competitions that are related to ageing populations in modern welfare societies. The emphasis lies on the need for new buildings for care and caregiving. The realization of these buildings demonstrates beliefs and notions about the appropriate interaction between the human being and architectural space for the senior segment of the population. Architecture for residential care homes organizes space around individual and collective life stories, which evolve in private zones and in communal space for dining and socializing. It is our hope that this article will encourage reflection so that the architectural profession and potential organizers of architectural competitions will explore the capacity for architecture to improve the quality of everyday life for those whose self-image has been changed by age and who experience an increasing need for care and caregiving. In the quest for such architecture, architectural competitions provide a professional laboratory for innovation and spatial experiments (Rönn, Andersson & Kazemian, 2011).

The article is divided into three parts. We begin by giving an overview of international research on architecture for care and caregiving. The relationship between human beings, the ageing process and the spatial design is addressed. Conclusions on this interaction, formulated by three researchers in architecture, will be discussed. These are the American researcher Victor Regnier, Professor at the School of Architecture, University of Southern California; Philippe Dehan, a teacher at the École Nationale Supérieure d'Architecture in Paris-La Villette, France; and Benjamin Schwarz, Professor at the Department for Architectural Studies at the University of Mis-

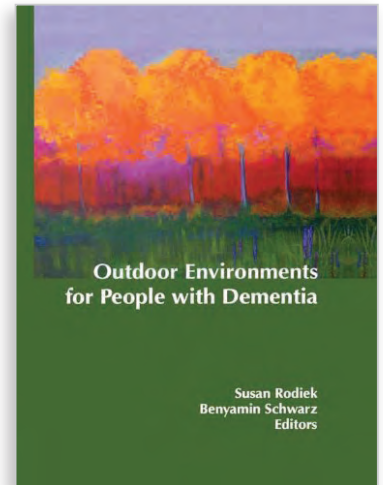
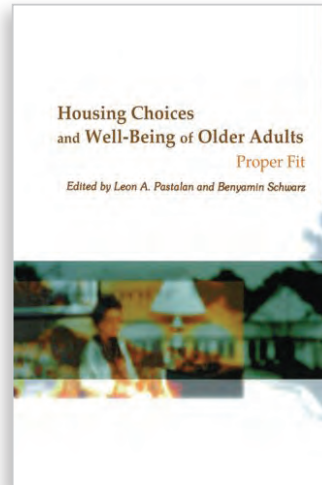
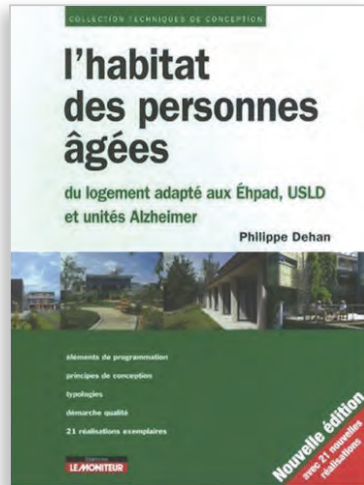
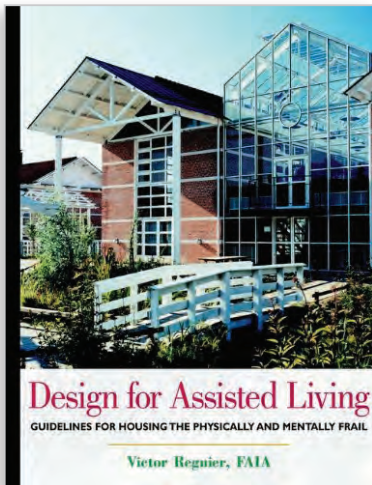
souri, US. The second part of the article will present Nordic architectural competitions that have focused on buildings for care and caregiving. A significant feature of these competitions is a certain conflict that can be perceived to exist between austere institutional design and fragile homelike qualities.

In the final part of the text, we will analyse the representation of people, architecture, nature, climate, technologies and activities that can be found in competition proposals. We will look at four proposals to an invited competition for a residential care home in the municipality of Linköping, Sweden. The competition was part of a Swedish governmental programme called Growing Older – Living Well (*Bo bra på äldre dar*) and in the following termed GOLW, 2010–2012. The programme aimed at innovating and developing creative housing solutions for the senior Swedish population (Andersson & Rönn, 2014). The competition proposals provide informative insights into Swedish architects' ideas for the ageing welfare state.

ELDERCARE AND CAREGIVING AS SPATIAL DESIGN

Public buildings for care and caregiving often reflect societal power relations and cultural beliefs through the way the inner space and the façades are organized. The spatial configuration of prisons and similar institutions has a long history of being used as a tool for moral education, while the homelike architecture of residential care homes, designed for maintaining health, individuality and safety, evolved during the 20th century. According to the so-called ecological model of ageing, the individual experience of space can be understood as a physiological response that results in either stress or well-being. The reaction is mediated by environmental pressure, and conditioned by the individual's competence and abilities to interact with the surrounding environment (Lawton & Nahemov, 1973).

The American architect and gerontologist Victor Regnier draws on case studies in order to analyse strengths and weaknesses in architectural designs for residential care homes (Pynoos & Regnier, 1991). Regnier has studied the relationship between human beings and space from three different perspectives: the elderly, the members of the care staff and the interaction of both of these groups with their environment. Through use of photographs, drawings and observations, Regnier has compiled research material which he has analysed with methods that are used by practicing architects. The analyses have also included theories on age-related diseases, especially dementia. Looking at 15 residential care homes in the United States, Canada and Northern Europe (Denmark, Finland, the Netherlands, Sweden and Great Britain), Regnier has developed a spatial theory that consists of 104 environmental aspects that architects and planners need to consider in order to create a supportive environment for frail and dependent older people (Regnier, 2002). One fundamental criterion is the localization of the building and its integration in the surrounding environment, so that this asset can promote the residents' sense of coherence and, thereby, avoid the institutional trait, which is often present in assisted living facilities.



Book covers from left to right:
Victor Regnier, 2002,
Philippe Dehan, 1997
Pastalan & Schwarz, 2013
Rodiek & Schwarz, 2013

Regnier relies on the potential of architecture to invoke memories of other life experiences, which support older people in their everyday living (Ibid, 2002).

The French architect and researcher Philippe Dehan foregrounds the importance of using a transdisciplinary approach from the very beginning of a new project for a residential care home. This approach to promote a homelike environment and a sense of belonging instead of a dull institutional experience has been used in France since 1989 (Dehan, 1997). The method is called SÉPIA (Sécteur expérimental pour la programmation innovante de l'habitat des personnes âgées). Exemplary models of residential care homes in France, Germany, Austria and the Nordic countries, especially Denmark, are used for describing the necessary division into public and private zones (Ibid, 2007). Dehan makes a connection between the architectural design and typical features of a person who suffers from dementia: Changes in the brain cause worries that initially result in an urge to walk the stress off, but these changes also increase the person's dependence on the care staff to be able to navigate in the surrounding space. Dehan implements his research in his architectural practice. In the winning proposal for a residential home in Brie-Comte Robert outside Paris, he designed an open communal space surrounded by the individual flats, which invited residents suffering from dementia to freely move around inside and outside the residential care home.

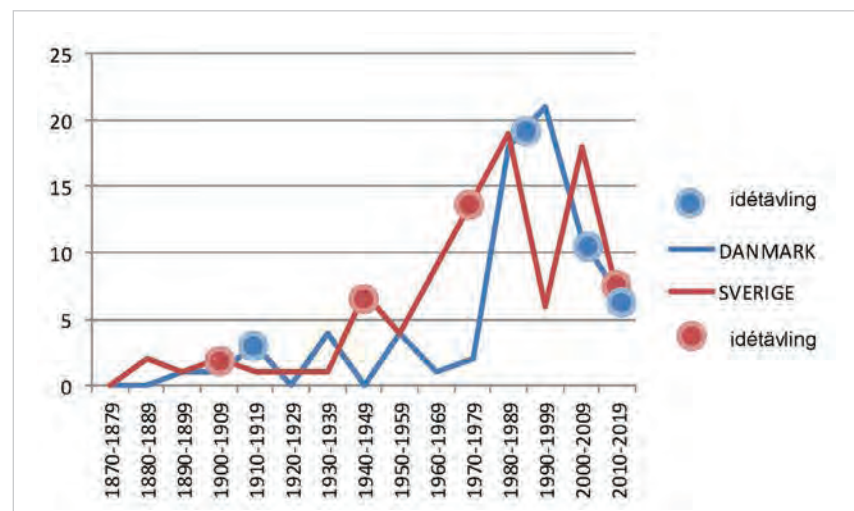
The research carried out by the American professor Benjamin Schwarz centers on the contents in a built space and the possible transitions from interior to exterior space. Schwarz's studies discuss interior design, architecture and landscape planning (Pastalan & Schwarz, 2013). He emphasizes the importance of designing residential care homes so that they appear as homelike as possible. The homelike aspects are associated with ethnicity, culture and traditions. Hence, it is not a matter of finding an aesthetic solution that is required, but, rather, a conscientious conceptualization of architecture that can be associated with different contexts. Home-

likeness promotes recognition, which is ultimately based on the older person's experiences of different home environments and forms of living. Such recollections are especially important for people who suffer from dementia (Rodiek & Schwarz, 2013). Recognition is supported by the use of furniture, curtains, textiles and various artefacts. In a similar manner, the design of the garden can be used for empowering the residents' individual experiences of natural and cultivated landscapes. The garden has to have places in the shadow or exposed to the sun, opportunities for sojourns, and pathways that are accessible and usable by all residents, even those who use assistive equipment like walkers or wheelchairs. Older people benefit from architecture and garden designs that make use of nature, natural light and various sensory stimuli including visual impressions and fragrances.

COMPETITIONS ON RESIDENTIAL CARE HOMES IN THE NORDIC COUNTRIES

In the Nordic countries, architectural competitions have been used as a socio-political tool to define spaces for ageing people who are in need of eldercare and caregiving during the 20th century. From the mid-19th century through to the late 20th, an equal number of 80 competitions have been organized in Denmark and Sweden. These competitions were influenced by changing political ideals that were characterized by an increasing will to replace large institutions with small-scaled and homelike buildings. The competitions illustrate a societal transformation that goes from self-supporting poor houses to modern residential care homes. Nowadays it is a civil right for everyone to have access to a studio flat and caregiving once their health falters (Andersson, 2014). Project competitions have created new residential care homes, while idea competitions have been used for developing normative guidelines for appropriate housing while keeping building costs at a reasonable level. This goes particularly for competitions held in Norway and Sweden (Andersson, 2011; Dobloug, 2006).

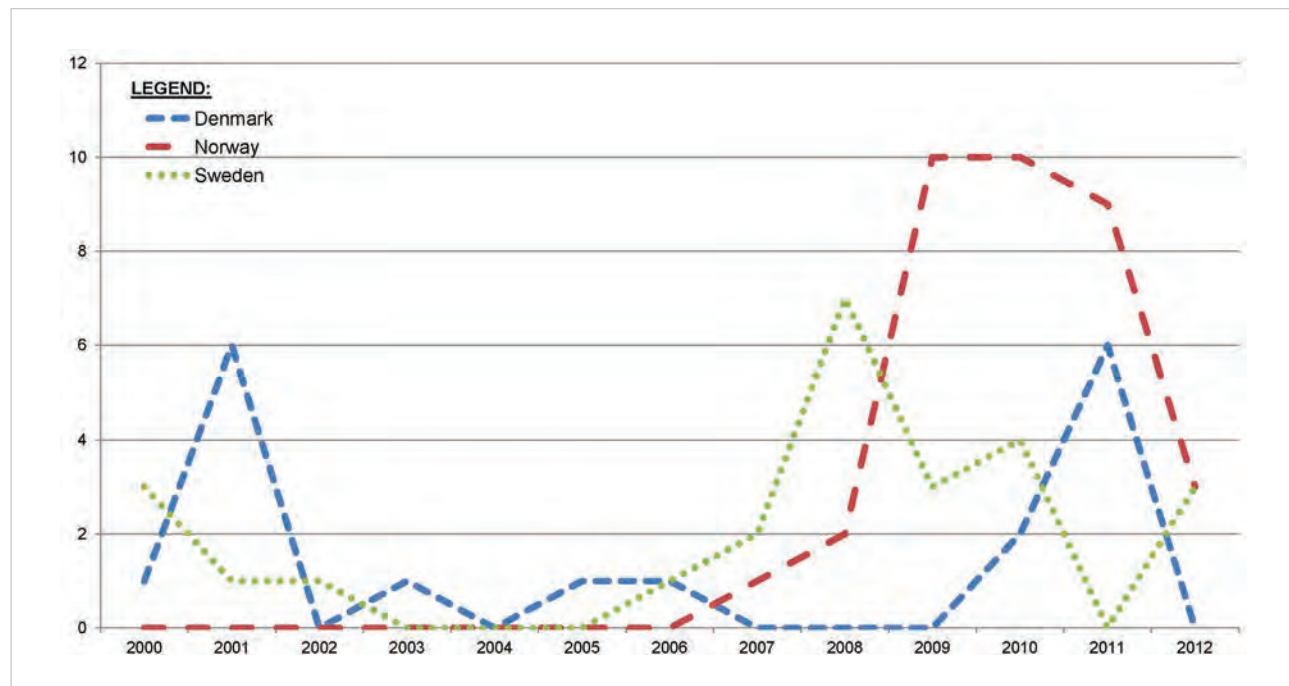
From the mid-19th century through to the late 20th, an equal number of 80 competitions have been organized in Denmark and Sweden



At the start of the new millennium, between 1999 and 2000, some 199 architectural competitions were held in Denmark, Finland, Norway and Sweden (Kazemian, Rönn & Svensson, 2007). Of these competitions, 11 per cent related to buildings for care and caregiving. A common trait for these buildings was the abandonment of long-term geriatric wards in large hospitals and the favouring of small-scaled group homes with studio flats and shared space for dining and socializing (Andersson, 2012). The emphasis shifted from strict medical care routines to personalized care of the ageing person so that he or she could maintain his/her independence. Also, the ageing process per se has changed as the number of dementia diagnoses began to increase dramatically by the end of the 1990s. Dementia is now the main cause for older people to move into a residential care home in Denmark, Norway and Sweden. Consequently, the demands on the supportive potential of architecture to improve the quality of life and promote positive sensory experiences by the residents have also increased. However, the manner in which the ageing welfare state meets these new demands seems problematic, since the number of available flats in residential care homes has decreased during the 21st century, not least in Sweden.

The ageing welfare state has resulted in an increasing need for new architectural competitions that explore innovative space for ageing well. Between 2000 and 2012, a global number of 77 architectural competitions which aimed at finding new forms of housing for elderly people were arranged in Denmark, Norway and Sweden (Andersson, 2012). In Denmark, pensioners' associations initiated a

Competitions in Denmark, Norway and Sweden in 2000–2012.



change in the design of residential care homes. Between 2004 and 2008, a national research project on appropriate housing for older people with a focus on well-being and satisfaction was realized in Denmark. This resulted in a national design programme for residential care homes (www.modelprogram.dk) that regulates Danish architectural competitions concerning buildings for care and caregiving. In 2008, the Norwegian State Housing Bank (Husbanken) issued new recommendations for residential care homes, according to which the architectural design should be based on a life-cycle perspective. The Swedish Government appointed the Delegation on Elderly Living, DEL, to investigate during a two-year period, between 2006 and 2008, various forms of housing for the elderly, both in the ordinary housing stock as well as in sheltered housing. Subsequently, state grants were made available in order to increase the number of available flats in residential care homes. A second government commission, the aforementioned GOLW initiative, 2010-2012, was set up. Here, architectural competitions were to be used as a tool to create new forms of housing for the elderly (Andersson & Rönn, 2014). However, no research-based programmes were drawn up for these competitions.

AGEING IN ARCHITECTURAL COMPETITIONS

In 2011, three invited competitions were held in Burlöv, Gävle and Linköping as part of the GOLW initiative. We are particularly interested in how the design teams have visualized the assisted living facilities of the future and we have drawn inspiration for our analysis from Gomes & Haskins' (2012) study on architectural competitions. Our hypothesis is that the architects' perceptions of ageing in the welfare state are reflected in the competition proposals they submit. The analysis itself is based on how people, architecture, nature, climate, technology and activities performed in the facilities are depicted in the competition proposals.

Our study focuses on the Linköping competition (Andersson & Rönn, 2014). The aim of this invited competition was two-fold: the organizer wanted to obtain design proposals for an assisted living facility comprising 40 flats on a plot designated for that purpose, and the municipality wanted to procure architectural services. According to the pre-qualification invitation, the local authorities wanted four design teams to participate. Submission of an approved proposal would be rewarded with SEK 200 000 in payment. The invitation yielded 33 applications from which the following four design teams were picked:

- FOAJB Arkitekter and JJW Arkitekter
(Swedish-Danish design team)
- MAF Arkitekter and Argark
(Swedish design team)
- Marge Arkitekter and Land Arkitekter
(Swedish design team)
- Semrén + Månsson and Rubow Arkitekter
(Swedish-Danish design team)

Proposals were expected to display good architecture as well as functionality as regards future demands on assisted living facilities. Situated in a 1960s residential area, the building was not only to function as a meeting place, but also to house a public bath and gym as well as areas for various other curricular activities and celebrations. Apart from architectural drawings (site plan, plans, sectional drawings, elevations, perspective drawings) and illustrations, the competition proposals were to include furnished standardized flats and shared facilities, a sketch-up model, colouring, choice of materials and a short written description. The jury appointed to judge the competition consisted of politicians, municipal officials and experts:

- Jan-Willy Anderson, politician, chairman of the Elderly Committee
- Ali Hajar, politician, vice-chairman of the Elderly Committee
- Muharren Demirok, politician, chairman of the Committee on Planning and Community Development
- Kristina Edlund, vice-chairman of the Committee on Planning and Community Development
- Michael Porath, municipal official, Administration for Planning and Community Planning
- Elisabeth Ulvenäs, municipal official, Administration for social care
- Elisabeth Viman, municipal official, Administration for social care
- Lars Ström, landscape architect, appointed by the Swedish Association of Architects
- Anders Falk, architect, expert appointed by the municipality of Linköping
- Johanna Holm Bodin, architect, appointed by the Swedish Institute for Assistive Technology

The ten-person jury, which comprised three external members, four politicians and three municipal officials, reflected two municipal interests, as this was a competition focused on good eldercare and caregiving facilities on the one hand and architecture and city planning on the other. Three of the members were external experts: a landscape architect appointed by the Swedish Association of Architects, an architecture expert appointed by the municipality and an architect appointed by the Swedish Institute for Assistive Technology commissioned to carry out the GOLW initiative. Claes Larsson from the Swedish Association of Architects functioned as the jury secretary. The jury was to judge the design proposals created by the design teams based on the following criteria:

- Architectural design; indoor and outdoor features as well as how the architecture fit into the surrounding terrain;
- Functionality; aspects regarding housing, staff and management including energy efficiency and environmental aspects;
- Flexibility and development potential of the design;
- Practical feasibility and costs.

The external experts emphasized the possibilities inherent in architecture to create a good environment. When reviewing the competition proposals, two features came to be of particular importance



The first illustration: a view of a building and the surrounding landscape.
Marge Arkitekter & Land Arkitekter, 2012

to the jury members representing the municipality, namely the number of possible residents and staffing levels. However, judging the design proposals proved to be quite difficult as the programme included no clear directions as to the diagnoses of the residents, something which would inevitably affect which activities the building would be expected to house. As it happened, demands on elder-care and caregiving were only summarily described in an appendix.

AGEING, ELDERCARE AND CAREGIVING IN THE LINKÖPING COMPETITION

The jury selected 'Ett med naturen' (In harmony with nature) by Marge Arkitekter & Land Arkitekter as the winning proposal with the following motivation:

A building beautifully adapted to the surrounding terrain and existing built environment. The architecture of the building is modest and functional, displaying elegant and creative solutions as regards the building's interior architecture where the residents' flats are centred around a shared lounge and dining room. The fact that each apartment comprises a private balcony increases the residents' quality of life (Jury Report, 2012).

1. People

In order to accurately reflect life in an assisted living facility, the winning proposal contains a number of illustrations that represent people and ways of living (Marge Arkitekter & Land Arkitekter, 2012). In particular, five images demonstrate this assumption:

The first illustration presents a view of a building and the surrounding landscape. No fewer than 22 people can be seen in this image. However, it is difficult to make out any facial features or personality traits. Two older persons can be seen using wheelchairs.



Top:

The second illustration: a panoramic view of the entrance.

Next page, top:

The interior of a multi-purpose space for communal usages.

Next page, middle:

A diagramme of potential age-related problems and possible outcomes.

Next page, bottom:

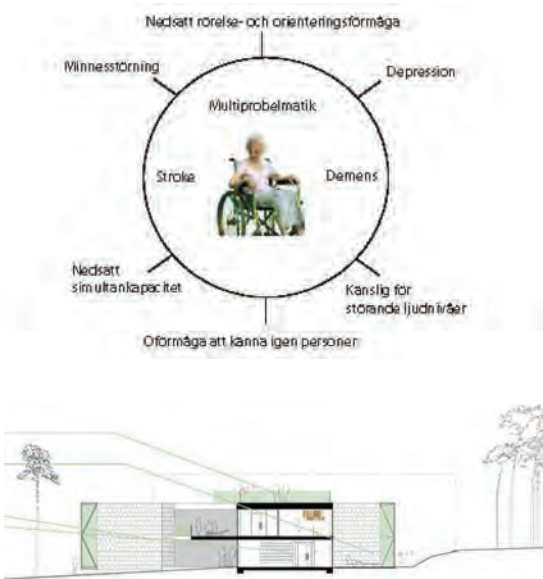
A cross-section through the building with imaginary people who suggest the use of space.

All images Marge Arkitekter & Land Arkitekter, 2012

An obscure, apparently younger individual in the background seems to exude a caring attitude, most likely indicating a relative or member of staff. A visiting grandchild is holding an older person's hand. A group of elderly individuals seem to be involved in a conversation. Some are walking around the yard, one person with the aid of a walking stick. Two couples are walking on a path bordering the building plot. All in all, the image conveys a sense of a slower pace.

The second illustration is a panoramic view of the entrance. Here one can see 18 people and a dog. One of the represented individuals appears to be a member of staff while the others seem to be elderly. Three people are depicted in wheelchairs and one person is approaching the house using a walker. In the foreground one can see a small seated group of people, one of whom is carrying a walking stick, engaged in conversation. It would appear that the weather has turned a bit chilly, as the people depicted are clad in jackets or coats.

The third illustration depicts the interior of a space for multi-purpose use. Four elderly people can be seen in this image. By a table an elderly woman is seated alone. A little further away a man can be seen sitting equally alone. Another woman can be seen from behind walking towards a window with the aid of a walker. The view attracts the observer's interest. At the same time, a man wearing a cap is leaving the room. The space for multi-purpose use seems impersonal and naked, devoid of any decorations, pictures, carpets or personal items. This lack of any homelike features increases a sense of this interior as an institutional space where easily cleaned surfaces are prioritized over comfort.



The fourth illustration differs from the previous ones. Whereas the other illustrations depicted environments, this one shows an elderly female resident in a wheelchair, who suffers from multiple conditions including stroke-related impairments and dementia. Other diagnoses which can be expected during a frail ageing process are represented in a circle around this person. Disabilities such as reduced capacity to move and navigate in space, memory disorders, depression, reduced ability to perform complex tasks, inability to recognize people and sensitivity to sound can be found outside the circle. This is a fair assessment of potential diagnoses that older people in need of 24-hour caregiving in a residential care home may suffer from. This frail group of people is the primary target group of the competition in question.

The fifth illustration is characteristic of the architecture profession: The people depicted in this cross-section are devoid of any features indicative of personality or gender. Their only purpose is to emphasize the use of space and penetration of natural light. Staff is only represented as blurred figures in the background, which is surprising given that the elderly residents, who are expected to live in these flats, are dependent on nursing staff day and night for caregiving and medical treatments.

Other proposals: The competition proposals submitted by FOJAB Arkitekter & JJW Arkitekter, MAF Stockholm & Argark and Semrén + Månsson & Rubow Arkitekter exude a quiet loneliness. For example, MAF Stockholm & Argark chose to depict an isolated elderly woman when illustrating their flats. On the other hand, the

shared space for multi-purpose use is characterized by a human touch, since a member of the nursing staff is engaged in a conversation with an elderly man. Other images that convey human warmth include those of visiting relatives, sometimes containing playful elements such as grandchildren playing football. Members of staff are rarely seen here, indicating that the residential care home as a place of work is not of immediate importance in these illustrations.

2. Architecture

The jury described the winning proposal designed by Marge Arkitekter & Land Arkitekter as being reminiscent of a seaside hotel in a sun-kissed pine forest. The roof terrace offers a view of the surrounding landscape and the apartment balconies are perceived as an additional advantage. Both the spatial organization and the exterior of the building, including how it fits into the environment, are all aspects appreciated by the jury. They were, however, critical of the ground floor concrete deck which they considered to need some adjustments.

Another point of critique were the flats, which the jury considered to be too small and hence difficult to furnish, see sixth illustration. The idea was that the small size of the flats would be compensated by larger public areas. According to the jury, the central location of secondary space, i.e. kitchen, nurse station, office and storage space, would increase the visibility of the staff in the building. Supposedly, this would result in the elderly residents experiencing an increased sensation of safety and security. However, the illustrations contradict this assumption.

Other proposals: Several architectural concepts can be recognized among the other submitted proposals. FOJAB Arkitekter & JJW Arkitekter for instance chose to place their flats in three separate buildings of differing sizes aimed at giving the complex a human scale. The flats in the proposal submitted by Semrén + Månson & Rubow Arkitekter are also placed in separate buildings connected two by two through a shared sundeck. MAF Stockholm & Argark on the other hand chose to house all flats in one single building on the very edge of the plot. What all of these proposals have in common is a residential idiom. Two of the proposals make use of objects such as carpets and ornaments, as well as an open fireplace, in the space for multi-purpose use to evoke a homelike feeling. This type of interior setting promotes a positive atmosphere, and is demonstrated by the two proposals submitted by FOJAB Arkitekter & JJW Arkitekter and MAF Stockholm & Argark.

3. Nature

The flats of the winning proposal are situated in a peri-urban environment. Tall, grey grass and leafless birches illustrate an autumnal landscape. The winning architects emphasize the natural setting through existing trees with photographic qualities and new trees with graphic representations. Only the existing pines are green. Mixed with these true-nature renderings of pines, computer-generated trees of various types illustrate new plantings.

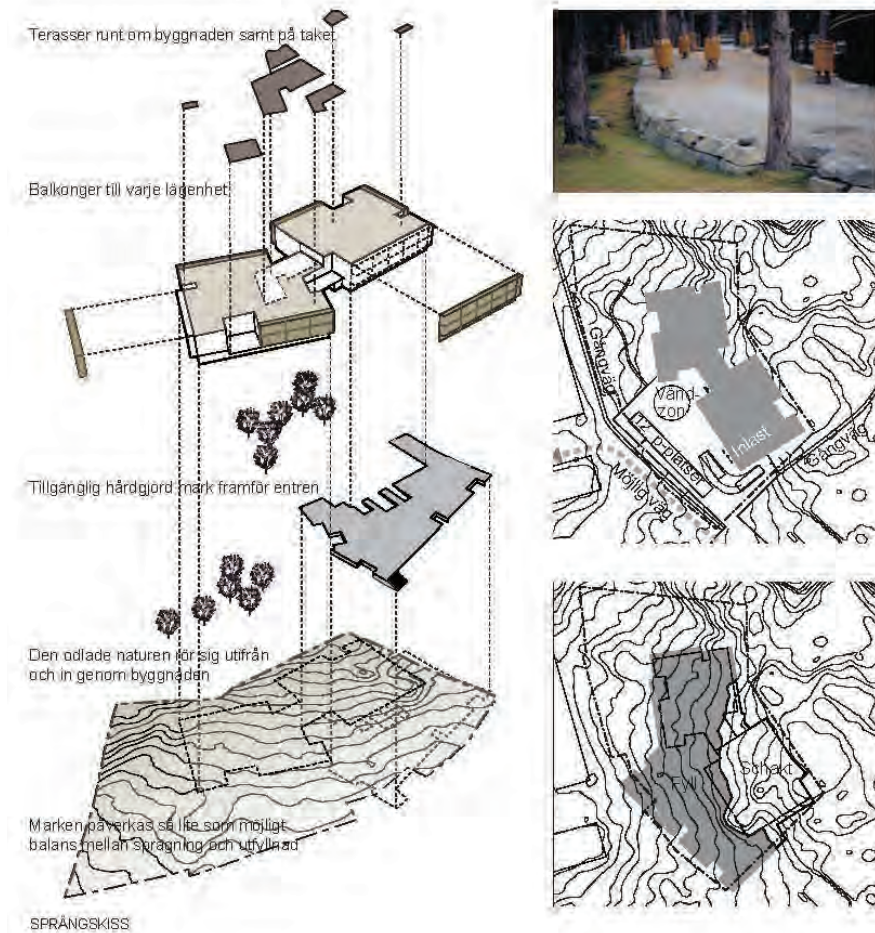


The sixth illustration: The idea was that the small size of the flats would be compensated by larger public areas. Marge Arkitekter & Land Arkitekter

Other proposals: The proposal submitted by FOJAB Arkitekter & JJW presents a cultivated landscape amidst the mature pine forest that is interspersed with deciduous trees. Small images of fruit trees, water mirrors, flowers and blueberries suggest the sensuous qualities of the new landscaping. MAF Stockholm & Argark Arkitekter envision a landscape of newly planted coniferous and deciduous trees. A kept lawn strikes a contrast to the natural landscape. The main entrance to the flats is framed by a flower bed. On the other hand, the buildings in the Semrén + Månsson & Rubow Arkitekter proposal are cautiously fitted in between the existing pine forest. This proposal includes a walking trail that is accessible and usable for elderly people with reduced mobility.

Exploded elevations illustrate how building technology is used to construct a residential care home on this sloping terrain.

Marge Arkitekter & Land Arkitekter



4. Climate

The illustrations of the winning proposal do not provide any decisive clues as to the time of year. The illustrations suggest a daytime hour, and the sky is blue. There is no sign of rain, but is it spring, summer or autumn? The lack of snow or ice in the illustrations, potential inhibitors of older people's outdoor activities, clearly demonstrates that it is not wintertime.

Other proposals: The FOJAB Arkitekter & JJW proposal shows a clear blue dusty sky. The heather is in bloom. The illustrations project an impression of a crisp spring day. The elderly residents wear coats or other outer garments. The MAF Stockholm & Argark proposal depicts a clear blue sky, perhaps an early summer day. The proposal by Semrén + Månsson & Rubow Arkitekter suggests high summer with warmer temperatures, since people are dressed in short-sleeved shirts. It is a calm and windless day and the sun throws beams of light and shadows on the surrounding façades and streets.

5. Technology

The winning proposal illustrates two types of technology, on the one hand personal assistive equipment, and on the other hand new building techniques. Remarkably many of the elderly residents appear to be able to move about without assistive equipment like walking sticks, wheelchairs or walkers. Exploded elevations illustrate how building technology is used to construct a residential care home on this sloping terrain. A supplementary drawing is used to explain the need for additional landscaping due to blasting, refilling and soil treatment. Other technological solutions are also displayed as small explicatory images. All of the proposals lack illustrations of eldercare solutions that are part of the modern development of welfare technology in order to back up caregiving and eldercare.

Other proposals: FOJAB Arkitekter & JJW Arkitekter make use of illustrations of assistive equipment such as walkers and wheelchairs. The same is found in the proposal by the MAF Stockholm & Argark. In addition to assistive equipment, Semrén + Månsson & Rubow Arkitekter introduce walking frames in an image with two men. The wheelchair is also used as a symbol on the floorplans of the flats in order to suggest that the flat size respects modern demands for accessibility and usability in the built environment.

6. Activities

The elderly residents of the winning proposal seem to lead a passive lifestyle. On this point, the illustrations do not meet what was requested by the organizer in the competition programme. The residential care home in Linköping was intended to encourage the older residents to participate in activities and promote their inclusion in the surrounding social life, but also vice-versa, to welcome the inhabitants of the neighbourhood to come to the home. In order to achieve this, the facility was to be integrated into the surrounding community by offering public space that could accommodate various activities. The only activity that is suggested by the winning proposal is occasional walks for the elderly residents. Most of the illustrations present the older residents as sitting alone or in smaller groups with 1-2 persons. This sense of isolation is particularly present in the illustration of space for multi-purpose use.

Other proposals: The illustrations of the FOJAB Arkitekter & JJW Arkitekter proposal depict the elderly taking walks outside the building, and they also indicate the possibility of organizing outdoor dancing or card games through the installation of an outdoor dance floor. The illustrations also suggest gardening as a type of outdoor activity for the elderly. In the space for multi-purpose use, the residents are reading aloud to their grandchildren and playing the guitar. MAF Stockholm & Argark presents a family who visits their older relative and goes for a walk. An older couple is waiting by the entrance, dressed up as if they are going out for relaxation. An elderly woman is watering plants nearby. Semrén + Månsson & Rubow also show healthy elderly residents, who are walking and engaging in conversations. In addition, the proposal includes illustrations of wooden reclining chairs with a seated person, who is enjoying the view or the sunshine on the roof terrace.

CONCLUSION AND DISCUSSION

This overview of architecture for care and caregiving for the ageing welfare society can be summed up in four bullets.

Firstly, it is clear that the architectural competition's potential as a professional laboratory and experimental is not fully exploited. The Swedish competitions in the municipalities of Burlöv, Gävle and Linköping were organized as customary invited competitions, despite the outspoken innovative ambitions of the governmental GOLW initiative. The organizers failed to take advantage of the potential for innovation that can be linked with the pre-qualification procedure and the early programming phase of an architectural competition. Instead, they invested their hope for innovation in the design teams, and expected that they would come up with innovative solutions in response to the competition task. In contrast to Sweden, Denmark and Norway try to control the competition process by supplying national guidelines that define fundamental criteria for new designs of residential care homes to respect.

Secondly, research demonstrates that architecture intended for frail and dependent older people in need of 24-hour caregiving is a transdisciplinary task, since it requires both knowledge of the human ageing process and high design skills. This is a prerequisite for the architectural design in order to meet the needs of older people with cognitive or functional deficiencies that encompass emotional aspects of closeness, safety, security and access to positive sensory experiences. In this area, transdisciplinary research may help to develop a type of supportive architecture.

Thirdly, a residential home care setting is simultaneously a home environment for frail and dependent older people and a modern work environment for the care staff, both depending on a caregiving operation that is regulated by financial conditions. The Swedish municipalities' emphasis on rationality and efficiency in the architectural design may, in conjunction with work environmental and care routines, assume too great a regulating effect on the planning process of a residential care home. The professional organization of care and caregiving for older people must respect the elderly residents' need to maintain a level of independence and a realm of individuality. The goal of any new planning process for a new residential care home should be to develop a type of architecture which promotes recognition in a homelike environment.

Fourthly, elderly people are not a homogenous group, but individuals who experience a personal ageing process that may result in various cognitive and functional deficiencies. Consequently, this generates disparate demands on the design of the private dwelling as well as the communal space for dining and socializing. The architectural design needs to include spatial transitions, semi-private zones and smaller areas for social meetings for 2-4 persons.

The great challenge for architectural design in the future welfare society can be summed up in two objectives: 1) Architecture should actively promote and encourage possibilities for participation, quality of living and maintenance of good health in the later stages of life. This aim is supported by humane values in modern society.

Architecture should diminish institutional features in the design of appropriate care and caregiving environments. The driving force behind this goal can be found in legal frameworks, the structuring of care and caregiving for the senior population and the organization of group living facilities. It falls upon the architectural profession and the body of practicing architects to assume responsibility and deliver an architectural solution based on a close analysis of existential needs during the ageing process that meets this challenge for the modern welfare society.

References

- Andersson, J. E. (2011). *Architecture and Ageing. On the interaction between frail older people and the built environment* (Vol. Doctoral thesis). Stockholm: School of Architecture, Dpt Architecture and the Built Environments, Royal Institute of Technology, KTH.
- Andersson, J. E. (2012). *Architecture competitions, demographic changes and eldercare*. Paper presented at the International competitions and architectural quality in the planetary age. CRC + LEAP International Symposium, 16-18 March 2012, Montréal, Canada.
- Andersson, J. E. (2014). Architecture and the Swedish welfare state: three architectural competitions that innovated space for the dependent and frail ageing. *Journal of Ageing & Society*, 2014(February), 1-28. doi: 10.1017/S0144686X14000014, Published online: 05 February 2014
- Andersson, J. E. (2014). Architecture and social ideals for dependent and frail older people. [Contribution to Danish anthology about housing for older people, translation from English into Danish]. In T. Rostgaard & P. H. Jensen (Eds.), *Anthology in Danish about housing for older people, open title (in press)*. Aalborg: Open.
- Andersson, J. E., & Rönn, M. (2014). *Arkitektur för Bo bra på äldre dar – tre arkitekttävlingar i Burlöv, Gävle och Linköping*. Hamburgsund: Stockholm: Kungl. Tekniska Högskolan och Kulturlandskapet.
- Dehan, P. (1997). *L'Habitat des personnes âgées, du logement aux établissements spécialisés*. Paris: Le Moniteur.
- Dehan, P. (2007). *L'Habitat des personnes âgées, du logement adapté aux EHPAD, USLD, et unités Alzheimer*. Paris: Le Moniteur.
- Dobloug, M. (2006). *Bak verket. Kunnskapsfelt og formgenerende faktorer i nyttearkitektur 1935-1985*. (doctoral), Arkitektur- og designhøgskolen i Oslo (AHO), Oslo.
- FOJAB Arkitekter & JJW Arkitekter. (2012). Hem ljuva hem. Tävlingsförslag inbjuden arkitekttävling Majelden, Linköpings Kommun.
- Gomes, F., & Haskins, J. (2012). Analysis of architectural representation as a research method: National library competitions. *Nordic Journal of Architectural Research*, 2012(1), 31-64.
- Juryutlåtande MAJELDEN (2012). Inbjuden projekttävling om framtidens vårdbostäder i Linköping. Linköping kommun.
- Kazemian, R., Rönn, M., & Svensson, C. (2007). *Arkitekurtävlingar: erfarenheter från Finland*. Stockholm: Axl Books.
- Lawton, M. P., & Nahemow, L. (1973). Ecology and the aging process. The psychology of adult development and aging. In C. Eisdorfer & M. P. Lawton (Eds.), *The Psychology of Adult Development and Aging* (pp. 619-674). Washington D.C: American Psychological Association.
- MAF Stockholm AB & Argark. (2012). Gunborg. Tävlingsförslag inbjuden arkitekttävling Majelden, Linköpings Kommun.
- Marge Arkitekter AB & Land Arkitekter AB. (2012). Ett med naturen. Tävlingsförslag inbjuden arkitekttävling Majelden, Linköpings Kommun.
- Pastalan, L. A., & Schwarz, B. (2013). *Housing choices and well-being of older adults*. Proper fit. London: Routledge.
- Pynoos, J., & Regnier, V. (1991). Improving Residential Environments for Frail Elderly: Bridging the Gap between Theory and Application. In J. E. Birren, J. E. Lubben, J. C. Rowe, & D. E. Deutchman (Eds.), *The Concept and Measurement of Quality of Life in the Frail Elderly*. San Diego, New York, Boston, London, Sydney, Tokoy, Toronto: Academic Press, Inc.
- Regnier, V. (2002). *Design for Assisted Living. Guidelines for Housing the Physically and Mentally Frail*. New York: Wiley & Sons Inc.
- Rodiek, S. D., & Schwarz, B. (2013). Outdoor environments for people with dementia. In S. Rodiek & B. Schwarz (Eds.). London: Routledge.
- Rönn, M., Andersson, J. E., & Kazemian, R. (2011). *Architectural Competition. Research inquiries and experiences*. Stockholm: Axl Books.
- Semrén + Månsson & Rubow. (2012). Livsrum. Landskapsrum. Tävlingsförslag inbjuden arkitekttävling Majelden, Linköpings Kommun.
- Tävlingsprogram (2011). MAJELDEN. Inbjuden projekttävling om framtidens vårdbostäder i Linköping. Linköpings kommun.